BLUE RIDGE ENVIRONMENTAL DEFENSE LEAGUE

www.BREDL.org ~ PO Box 88 Glendale Springs, North Carolina 28629 ~ Phone (336) 982-2691 ~ Fax (336) 982-2954 ~ BREDL@skybest.com
IN VIRGINIA: 1828 Brandon Ave. SW Roanoke, Virginia 24015 ~ Phone (540) 342-5580 mebarker@rev.net

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1828 Brandon Ave. SW
Roanoke, VA 24015

Donald S. Welch
Regional Administrator
U.S. EPA Region III
1650 Arch Street
Philadelphia, PA 19103-2029

Robert Burnley
DEQ Director
Virginia Dept. of Environmental Quality
629 East Main Street
P.O. Box 10009
Richmond, VA 23240-00009

Dear Administrator Welch and Director Burnley:

Comments regarding Ozone Non-attainment Status for Pittsylvania & Henry Counties in Virginia

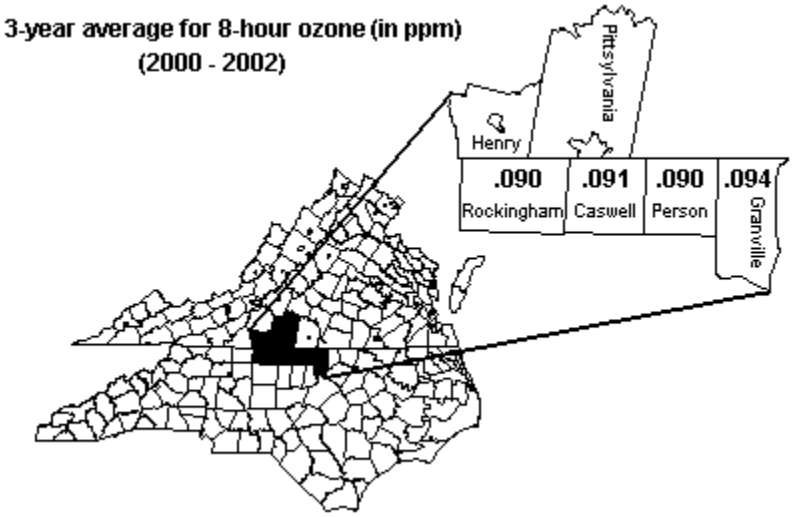
We are writing on behalf of the Board of Directors of the Blue Ridge Environmental Defense League and Piedmont Residents In Defense of the Environment. BREDL is a regional, community-based, non-profit environmental organization. Our founding principles are earth stewardship, environmental democracy, social justice, and community empowerment. BREDL has chapters throughout the Southeast. PRIDE is a BREDL chapter based in Pittsylvania and Henry counties.

We understand that by April 2003, Virginia DEQ will be updating their recommendations to EPA for Virginia areas that fail to meet the 8-hour ozone health standard. We endorse the EPA recommendation that Pittsylvania County, Virginia be designated as an 8-hour ozone non-attainment area. In addition, we request that Henry County, Virginia also be designated as an 8-hour ozone non-attainment area. We provide the following information and comments.

Adjacent Counties with monitors exceed 8-hour health standard

The ozone monitors located in the adjacent and nearby counties to Henry and Pittsylvania exceed the 8-hour ozone health standard. The North Carolina counties of Rockingham, Caswell, Person and Granville have ozone monitors whereas; the adjacent Virginia

counties of Henry and Pittsylvania do not have monitors. Not only did the North Carolina counties exceed the 8-hour standard based on 2000-2002 data, those counties will probably fall in the high marginal or low moderate EPA classification.



- BREDL map based on data from http://daq.state.nc.us/monitor/data/o3design/00-02.shtml

North Carolina has entered into several Ozone Early Action Compacts that include counties, which have no ozone monitors. These include the Mountain Area EAC which includes, in part, these counties that have no ozone monitors: Madison, Transylvania, and Henderson; the Unifour EAC which includes, in part, these counties that have no ozone monitors: Catawba and Burke; and the Triad area EAC which includes, in part, these counties that have no ozone monitors: Surry, Yadkin, Alamance, Davidson and Stokes. All these counties have something in common with Henry and Pittsylvania counties in Virginia. They are surrounded by counties that have ozone monitors and these monitors indicate exceedences of the 8-hour ozone health standard.

Removed Figsboro, Henry County ozone monitor showed high 8-hour ozone

From mid-summer 1994 until October 1997, there was an ozone monitor located in Figsboro, Henry County. This monitor was removed from service prior to the new 8-hour ozone standard. During this brief period of operation, data from this monitor showed the area was in attainment for the 1-hour ozone standard. However, when that data is calculated using the 8-hour ozone standard, it shows that the area has an ozone problem.[1] Currently, EPA has indicated that areas with an ozone concentration 3-year average that ranges from 0.081 ppm to 0.092 ppm would be classified as marginal non-attainment areas. If the 8-hour standard was in effect in 1997 and the current EPA

[1] Calculated on data provided by Virginia DEQ from the EPA AQS national air quality database in North Carolina. 8-hour data furnished on Jan. 23, 2003.

classification was utilized, then the Figsboro monitor would have fallen into the marginal non-attainment classification.

The fourth highest 8-hour ozone reading for each year (ppm)
1995 - 0.081
1996 - 0.086
1997 - 0.080

Thus, the 3-year average (1995 – 1997) for Figsboro would be 0.082 ppm.

By comparison, the North Carolina counties 3-year average (1995 – 1997)[2] were:

Rockingham – 0.085 ppm
Caswell – 0.090 ppm
Person – 0.082 ppm
Granville – 0.095 ppm

Whenever the Figsboro monitor is mentioned, DEQ responds that no violations were reported during that time period. However, as shown, when that data is translated into the 8-hour standard, violations do occur. From 1995 – 1997, if the 8-hour standard was in effect, there would have been 5 exceedences of the 84 ppb standard.

Pittsylvania and Henry counties have high emissions of NOx and VOC

The total NOx and VOC emissions for Pittsylvania and Henry counties are high during an ozone season day. In addition, the adjacent counties of Person and Stokes have extremely high NOx emissions. Pittsylvania Co./Danville & Henry Co./Martinsville have higher emissions than the adjacent/surrounding counties of Caswell and Granville, which are exceeding the 8-hour ozone standard.

Tons per Ozone Season Day		
Locality	**NOx**	**VOC**
Pittsylvania Co., VA	26.51	20.54
Danville, VA	3.07	3.37
Henry Co., VA	19.51	37.24
Martinsville, VA	2.54	6.50
Caswell Co., NC	3.02	4.51
Granville Co., NC	9.04	12.07
Person Co., NC	213.11	8.77
Rockingham Co., NC	43.62	24.83
Stokes Co., NC	286.55	7.97

- 1996 EPA NET [3]

[2] Data from http://daq.state.nc.us/monitor/data/o3design/o3nc95-97.pdf

DEQ has previously responded that some of these facilities in the Henry County area have shut down, thus there are less emissions. (DEQ did not indicate which facilities had closed nor their calculated potential decrease in emissions for the region.) While it is true some big facilities such as Dupont and Tultex have shut down, DEQ fails to acknowledge that new facilities have since commenced operation. DEQ also fails to include proposed new facilities, which DEQ has already permitted (such as the 1100 Mw Cogentrix Power Plant), that will add emissions.

In addition, Henry and Pittsylvania counties are surrounded by five coal-fired power plants emitting thousands of tons of NOx..

81,883 tons - Total NOx emissions for 5 coal-fired power plants around Pittsylvania County, VA and Henry County, VA (2001)

70,514 tons - Total NOx emissions from all Virginia coal-fired power plants (2001)

- BREDL map based on EPA emissions data from Clean Air Markets

[3] This is the most recent data available to the public online at http://www.epa.gov/ttn/naaqs/ozone/areas/emisdata.htm

Health Impacts

The health and environmental impacts from ozone pollution has been well documented and the bad news continues to mount. The documentation is overwhelming. Previous and recent research has shown ozone air pollution can cause asthma, be linked to a decrease in lung formation in children, be harmful to babies and fetuses, increase asthma attacks, and increase school absenteeism. According to the EPA, asthma among children increased from 5.8% in 1990 to 7.5% in 1995. Pittsylvania Co., VA and Caswell Co., NC are ranked number 1 in the nation for asthma mortality rates.[4] There are many triggers to asthma attacks, with ozone pollution being one.

Several research studies within the past couple of years have reinforced the reason why the new 8-hour ozone health standard and monitoring is needed. Time will tell, but even the new standard may prove to be insufficient. In February 2002, researchers at the University of Southern California, for the first time, found that children breathing heavily polluted air are more likely to develop cancer. In December 2001, USC researchers reported that cleaner air improves children's lung function. In December 2001, as published in *Epidemiology*, USC researchers reported that ozone pollution increases school absenteeism because of respiratory illnesses. Also, in the December 2001 *Epidemiology*, UCLA researchers found that smog is harmful to babies and fetuses causing stillbirths, infant deaths, and low birth weight. Other important studies include a study presented to the American Thoracic Society in the Summer of 2001 which said that playing sports in high ozone areas may increase asthma risk. Prior to that was the study released in the February 2001 *JAMA* that found a change in traffic patterns to reduce congestion for the 1996 Summer Olympics in Atlanta significantly decreased the number of asthma acute care events by over 41 percent. Lastly, in October 2000, USC researchers found that air pollutants slow children's lung development over time.

Estimated populations of High-Risk Groups in surrounding Virginia and North Carolina cities and counties.

County / City	Population	Lung Cancer	Emphysema	Chronic Bronchitis	Adult Asthma	Pediatric Asthma
Henry	56,078	35	458	3,033	2,260	789
Martinsville	15,814	14	165	870	638	210
Pittsylvania	57,905	35	461	3,129	2,298	861
Danville	51,291	72	494	2,805	2,058	708
Caswell	21,441	18	174	1,159	852	318
Rockingham	89,169	101	721	4,824	3,511	1,355

Source: American Lung Association 2000 data

[4] Health Service Area mortality data from 1995 to 1997 based on a population of at least 300,000 provided by the National Institutes of Health.

Need for an ozone monitor

The Air Technical Advisory Committee identified criteria for DEQ to consider in establishing new monitoring sites. According to the Committee, areas that should receive priority are:

a) areas of population density that have limited air quality data,
b) areas facing pending impact due to new industry,
c) ecologically sensitive areas (agriculture, forests, rivers and streams, visibility), and
d) area where data is lacking for determination of impact on agriculture and air pollution transport.
Other important criteria to factor into site selection are:
a) health-based concerns,
b) prevailing winds and topography, and
c) availability of EPA or other modeling data.

The report further ranked five areas, which should receive four available monitors. By this ranking, the Danville area is last on the list. We feel that this area is in a no-win situation because four nearby North Carolina monitors and a removed Henry County, Virginia monitor all show the area is having a problem meeting the 8-hour ozone standard. Yet, the Committee seems to indicate that the nearby North Carolina monitors will prevent the Pittsylvania/Henry Counties' area from acquiring a monitor while at the same time the Committee mentions that "Data from North Carolina, for example, might support but could not substitute for data collected from the Danville area."[5] In other words, despite the obvious ozone problem and the health problem, DEQ doesn't want to recommend this area as non-attainment for the 8-hour health-based ozone standard nor will it be inclined to give the area a monitor.

In conclusion

Virginia lacks the appropriate monitoring for ozone. Some highly populated areas of Virginia have no ozone monitoring. Pittsylvania and Henry counties represent just one of those areas which has no monitor. However, just because an area lacks the proper monitoring, does not mean it is not having an ozone problem.

BREDL and PRIDE formally request that Virginia DEQ recommend and U.S. EPA designate both Henry and Pittsylvania counties as 8-hour ozone non-attainment areas.

We further request an ozone monitor be located as soon as possible in this area.

We welcome an open dialogue on these matters.

[5] Options 1.1 and 1.2 from the Virginia Department of Environmental Quality Air Resources Impact Work Group DRAFT October 1, 2002 report

Respectfully submitted,

Mark E. Barker
BREDL SW Va Vice-President

Wyndy Gilb
PRIDE President

Cc:
Governor Mark Warner
State Capitol, 3rd Floor
Richmond, VA 23219

Tayloe Murphy
Virginia Secretary of Natural Resources
Ninth Street Office Bldg., 7th Floor
202 N. Ninth St.
Richmond, VA 23219

Judith Katz
Director Air Programs
U.S. EPA Region III
1650 Arch Street
Philadelphia, PA 19103-2029

John Daniel
Air Programs Director
VA DEQ
629 East Main St.
P.O. Box 10009
Richmond, VA 23240-0009

Walter Wilkie
U.S. EPA Region III
1650 Arch Street
Philadelphia, PA 19103-2029